

## B. Claims

A complete listing of all the claims appears below; this listing replaces all earlier amendments and listings of the claims.

1. (Currently Amended) A printhead substrate having a plurality of ink supply channels disposed at predetermined intervals comprising:

~~at least two~~ printing element arrays, each having a plurality of printing elements disposed in an area between ~~at least~~ two of the ink supply channels, alongside each of the ink supply channels;

a plurality of driving circuit arrays, each provided along respective one of the printing element arrays, for individually driving the printing elements of the printing element arrays;

a drive control circuit, disposed outside the area, for controlling the driving of the ~~at least two~~ printing element arrays, each of the printing element arrays provided along respective one of the two of the ink supply channels; [[and]]

a shared wiring portion, disposed in the area and elongated in a direction of a length of the printing element arrays, for providing a shared signal making each of the printing elements of the ~~at least~~ two printing element arrays provided corresponding to two adjacent ink supply channels of the plurality of ink supply channels drivable;

first wirings dedicated to one of the plurality of driving circuit arrays provided corresponding to one of two adjacent ink supply channels, the first wirings

extending from the shared wiring portion to the one of the plurality of driving circuit arrays; and

second wirings dedicated to another one of the plurality of driving circuit arrays provided corresponding to the other of the two adjacent ink supply channels, the second wirings extending from the shared wiring portion to the other one of the plurality of driving circuit arrays.

2. (Currently Amended) The printhead substrate according to claim 1, wherein a first printing element array and a second printing element array of the printing element arrays are disposed along both sides of each of the ink supply channels.

3. (Currently Amended) The printhead substrate according to claim 1, further comprising a time-divisional drive control circuit that time-divisionally drives the printing elements included in the ~~at least two~~ printing element arrays via the drive control circuit,

wherein the shared wiring portion is a plurality of wires that transmit a control signal for specifying a sequence upon the time divisional driving.

4. (Original) The printhead substrate according to claim 3, further comprising a decoder circuit that generates a control signal for specifying a sequence upon the time divisional driving.

5. (Previously Presented) The printhead substrate according to claim 3, wherein the time-divisional drive control circuit is provided on a peripheral portion of the printhead substrate.

6. (Canceled)

7. (Original) The printhead substrate according to claim 3, further comprising:

a shift register circuit that inputs a print signal for driving the printing elements; and

a latch circuit that latches the print signal input to the shift register circuit.

8. (Original) The printhead substrate according to claim 7, wherein the shift register circuit and the latch circuit are provided on a peripheral portion of the printhead substrate.

9. (Previously Presented) The printhead substrate according to claim 7, wherein the time-divisional drive control circuit, the shift register circuit and the latch circuit are provided on both sides in a longitudinal direction of the printhead substrate.

10. (Original) The printhead substrate according to claim 1, wherein the shared wiring portion is a matrix wiring capable of time-divisionally controlling sending an electric current so as to time-divisionally drive the printing elements.

11. (Original) The printhead substrate according to claim 1, wherein ink of different colors is supplied to each of the ink supply channels.

12. (Currently Amended) A printhead having a plurality of ink supply channels disposed at predetermined intervals comprising:

~~at least two~~ printing element arrays, each having a plurality of printing elements disposed in an area between ~~at least~~ two of the ink supply channels, alongside each of the ink supply channels;

a plurality of driving circuit arrays, each provided along respective one of the printing element arrays, for individually driving the printing elements of the printing element arrays;

a drive control circuit, disposed outside the area, for controlling the driving of the ~~at least two~~ printing element arrays, each of the printing element arrays provided along respective one of the two the ink supply channels; [[and]]

a shared wiring portion, disposed in the area, for providing a shared signal making each of the printing elements of the ~~at least two~~ printing element arrays provided corresponding to two adjacent ink supply channels of the plurality of ink supply channels drivable;

first wirings dedicated to one of the plurality of driving circuit arrays provided corresponding to one of two adjacent ink supply channels, the first wirings extending from the shared wiring portion to the one of the plurality of driving circuit arrays; and

second wirings dedicated to another one of the plurality of driving circuit arrays provided corresponding to the other of the two adjacent ink supply channels, the second wirings extending from the shared wiring portion to the other one of the plurality of driving circuit arrays.

13. (Currently Amended) The printhead according to claim 12, wherein a first printing element array and a second printing element array of the ~~at least two~~ printing element arrays are disposed along both sides of each of the ink supply channels.

14. (Currently Amended) The printhead according to claim 12, further comprising a time-divisional drive control circuit that time-divisionally drives the printing elements included in the ~~at least two~~ printing element arrays via the drive control circuit,

wherein the shared wiring portion is a plurality of wires that transmit a control signal for specifying a sequence upon the time divisional driving.

15. (Original) The printhead according to claim 14, further comprising a decoder circuit that generates a control signal for specifying a sequence upon the time divisional driving.

16. (Previously Presented) The printhead according to claim 14, wherein the time-divisional drive control circuit is provided on a peripheral portion of a printhead substrate.

17. (Canceled)

18. (Original) The printhead according to claim 14, further comprising:  
a shift register circuit that inputs a print signal for driving the printing elements; and  
a latch circuit that latches the print signal input to the shift register circuit.

19. (Original) The printhead according to claim 18, wherein the shift register circuit and the latch circuit are provided on a peripheral portion of a printhead substrate.

20. (Previously Presented) The printhead according to claim 18, wherein the time-divisional drive control circuit, the shift register circuit and the latch circuit are provided on both sides in a longitudinal direction of a printhead substrate.

21. (Original) The printhead according to claim 12, wherein the shared wiring portion is a matrix wiring capable of time-divisionally controlling sending an electric current so as to time-divisionally drive the printing elements.

22. (Original) The printhead according to claim 12, wherein ink of different colors is supplied to each of the ink supply channels.

23. (Original) The printhead according to claim 12, further comprising an ink tank integrated into the printhead for supplying ink to each of the ink supply channels.

24. (Original) A printing apparatus for printing by discharging ink onto a printing medium using a printhead according to claim 23.

25. (Original) The apparatus according to claim 24, wherein the printhead is exchangeable.

26. (Original) A printing apparatus for printing by discharging ink onto a printing medium using a printhead according to claim 12.